## WHAT IS CLAIMED IS:

1.     A control packet management device of a packet forwarding system, comprising:

a packet queue having a plurality of queues to store control packets as transmitted;

a first processor to transmit at least one of said control packets stored in one queue of said plurality of queues to a host by a one-to-one interrupt;

a second processor to divide said at least one of said control packets stored in said one queue into groups of a predetermined size and transmit said at least one of said control packets to said host in a group unit and by direct memory access (DMA);

a third processor to discard a most common type of said at least one of said control packets stored in said one queue; and

a controller to control said first, second and third processors to selectively operate in accordance with an accumulation state of said control packets stored in said plurality of queues, wherein

said controller stores the rest of said control packets other than the discarded control packets to another queue of said plurality of queues.

2.     The control packet management device of claim 1, wherein said controller controls said first, second and third processors to selectively operate

adaptively in accordance with an accumulation state of the rest of said control packets stored to said another queue.

3. The control packet management device of claim 1, wherein said plurality of queues have a predetermined threshold, and

said controller determines an accumulation state of said plurality of queues with reference to said predetermined threshold, and controls said first, second and third processors to selectively operate in accordance with said accumulation state of said plurality of queues.

4. The control packet management device of claim 1, wherein said controller controls said first processor such that, when an accumulation state of said at least one of said control packets in said one queue is lower than a first threshold, said first processor transmits said at least one of said control packets stored in said one queue to said host by the one-to-one interrupt.

5. The control packet management device of claim 1, wherein said controller controls said second processor such that, when an accumulation state of said at least one of said control packets in said one queue equals to, or greater than a first threshold, said second processor divides said at least one of said control packets of said one queue into groups and transmits said at least

one of said control packets to said host in a group unit and by direct memory access (DMA).

6. The control packet management device of claim 1, wherein said controller controls said third processor such that, when an accumulation state of said at least one of said control packets in said one queue is equal to, or greater than a second threshold, said third processor discards a first type of control packet which is most common among said control packets, and

controls said plurality of queues such that the rest of the control packets other than said first type of control packet are stored to a packet queue different from that of said first type of control packet.

7. The control packet management device of claim 2, wherein said controller controls said first processor such that, when said accumulation state of rest of said control packets in said another queue is lower than a third threshold, said first processor transmits said rest of said control packets stored in said another queue to said host by the one-to-one interrupt.

8. The control packet management device of claim 2, wherein said controller controls said second processor such that, when said accumulation state of said rest of said control packets in said another queue equals to, or is

greater than a third threshold, said second processor divides said rest of said control packets of said another queue into groups and transmits said rest of said control packets to said host in a group unit and by direct memory access (DMA).

9. The control packet management device of claim 2, wherein said controller controls said third processor such that, when said accumulation state of said rest of said control packets in said another queue is equal to, or greater than a fourth threshold, said third processor discards a second type of control packet which is most common among said rest of said control packets stored in said another queue, and

controls said plurality of queues such that a second rest of said control packets other than said second type of control packet are stored to yet another packet queue.

10. The control packet management device of claim 9, wherein, in an absence of said yet another packet queue amongst said plurality of queues, said controller controls said third processor such that, when said accumulation state of said rest of said control packets in said another queue is equal to, or greater than said fourth threshold, said third processor blocks the second rest of said control packets other than said second type of control packet from being stored to said another queue.

11. A method for controlling a control packet in a packet forwarding system, comprising:

(a) storing control packets, as transmitted, to one queue of a plurality of queues;

(b) transmitting said stored control packets of said one queue to a host by one-to-one interrupt;

(c) dividing said control packets of said one queue into groups of a predetermined size, and transmitting said control packets in a group unit to said host by direct memory access (DMA);

(d) discarding a most common type of control packet among said stored control packets of said one queue; and

(e) storing control packets other than the most common type in another queue of said plurality of queues, wherein

said (b), (c), (d) steps are operated selectively in accordance with an accumulation state of said control packets stored in said one queue.

12. The control packet controlling method of claim 11, wherein said (b), (c), and (d) steps are operated selectively in accordance with an accumulation state of said control packets other than the most common type, which are stored in said another queue.

13. The control packet controlling method of claim 11, wherein said plurality of queues have a preset threshold, and an accumulation state of said control packets of said plurality of queues is determined based on said preset threshold.

14. The control packet controlling method of claim 11, wherein said step (b) comprises a sub-step of transmitting said stored control packets of said one queue to said host by a one-to-one interrupt when said accumulation state of said control packets in said one queue is lower than a first threshold.

15. The control packet controlling method of claim 11, wherein, when said accumulation state of said control packets in said one queue equals to, or is greater than a first threshold, said step (c) comprises a sub-step of dividing said stored control packets of said one queue into groups of a predetermined size and transmitting said control packets in a group unit to said host by direct memory access (DMA).

16. The control packet controlling method of claim 11, wherein, when said accumulation state of said control packets of said one queue equals

to, or is greater than a second threshold, said step (d) comprises discarding a most common type of control packet among said stored control packets of said one queue,

and said step (e) comprises storing control packets other than the most common type to another queue of said plurality of queues.

17. The control packet controlling method of claim 12, wherein, when said accumulation state of said control packets other than the most common type in said another queue is lower than a third threshold, said step (b) comprises transmitting said stored control packets of said another queue to said host by a one-by-one interrupt.

18. The control packet controlling method of claim 12, wherein, when said accumulation state of said control packets other than the most common type of said another queue equals to, or is greater than a third threshold, said step (c) comprises dividing said stored control packets other than the most common type of said another queue into groups of a predetermined size and transmitting said control packets other than the most common type in a group unit to said host by direct memory access.

19. The control packet controlling method of claim 12, wherein, when said accumulation state of said control packets other than the most common type of said another queue equals to, or is greater than a fourth threshold, said step (d) comprises discarding a second type of control packet which is a most common type among said control packets stored in said another queue and said method further comprises a step (f) storing said control packets other than said second type of control packets to yet another queue of said plurality of queues.

20. The control packet controlling method of claim 19, wherein, in an absence of said yet another queue in said plurality of queues, and when said accumulation state of said control packets other than the most common type in said another queue equals to, or is greater than said fourth threshold, said method further comprises blocking said control packets other than most common type from being stored to said another queue.